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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,707	04/08/2005	Bernd Zschke	268510US0PCT	6914

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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COONEY, JOHN M

ART UNIT	PAPER NUMBER
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1765

NOTIFICATION DATE	DELIVERY MODE
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11/01/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/530,707	<b>Applicant(s)</b> ZASCHKE ET AL.	
	<b>Examiner</b> John Cooney	<b>Art Unit</b> 1765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8,10-12,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,10-12,17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Applicant's arguments filed 8-27-10 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 8, 10-12, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haider et al.(2004/0014828) in view of Matsumoto et al.(6,117,937) and EP-0,786,480{previously cited}.

Haider et al. discloses preparation of rigid closed cell polyurethane foams having closed cell contents in excess of 80% that are prepared by mixing and reacting MDI isocyanates having NCO content values and viscosities meeting those of applicants' claims, polymer/graft polyols employed in amounts meeting those claimed, catalysts, and blowing agents (see abstract, paragraphs [0009]-[0017] & [0026]-[0039], examples, and claims, as well as, the entire document).

Haider et al. differs from applicants' claims in that it does not particularly employ polymer polyols as defined by applicants' claims. However, Matsumoto et al. discloses preparations of polymer/graft polyols prepared using initiators as claimed and having OH values meeting those of the claims in making polyurethane foams for the purpose of imparting good compression and durability effects to the products obtained (see column

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1 lines 11-14, column 2 line 26 - column 4 line 41 and column 5 lines 7-26, as well as, the entire document). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the polymer polyols of Matsumoto et al. in the preparations of Haider et al. for the purpose of imparting their compression and durability enhancing effects in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Haider et al. differs additionally from applicants' claims 7 and 8 in that it does not specify particle sizes or distribution of their particles in their polymer polyols. However, EP-0,786,480 discloses polymer polyols having narrow particle sizes meeting those of applicants' claims for the purpose of providing polymer polyols used in urethane applications that have good processing effects (see abstract & page 6 lines 26-55, as well as, the entire document). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed polymer polyols having particle sizes disclosed by EP-0,786,480 in the preparations of Haider et al. for the purpose of imparting good processing effects in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. As to the bimodal particle distribution of applicants' claim 8, Haider et al. provides for at least one polymer polyol to be used within its teachings. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed multiple polymer polyols within the teachings of Haider et al. having independent, narrow particle sizes as provided for by EP-786,480 for the purpose of providing a

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multiplicity of polymer polyols having good processing effects in order to arrive at the processes encompassed by applicants' claim 8 in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402. Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

The following previous arguments are set forth again below:

Although the disclosures of Haider et al. noted in applicants' reply are noted, such specific preferred embodiments do not negate what is provided and allowed for by Haider et al.'s fully considered disclosure, including paragraph [0011]. It is maintained that Matsumoto et al. is properly looked to in order to address the deficiencies of Haider et al.'s generic teaching. Further, as Matsumoto et al. is looked to for its disclosure of polymer polyols known in the polyurethane foam art, that it is not specifically concerned with the formation of rigid foams does not negate its combination with the cited Haider et al. disclosure.

It is maintained that, in that there is significant overlap in the materials used in the flexible foam arts and rigid foam arts, looking to the teachings of Matsumoto et al. would be appropriate in addressing the deficiencies of Haider et al.

It is additionally maintained, in addition to the reasons set forth in the rejection above that it is seen to be appropriate to look to the higher OH number polymer polyols of Matsumoto et al. for use in the preparations of Haider et al. for the purpose of achieving higher crosslink density and rigidity imparting effects afforded by the use of higher OH number polyols.

As to applicants' latest arguments, it is held and maintained that rejection is appropriately maintained over the combined teachings of the cited prior art of Haider et al., pertaining particularly to rigid polyurethane foams, and Matsumoto et al., pertaining particularly to flexible foams, for all of the reasons reiterated in the rejection and arguments set forth above.

As to applicants' declaration and arguments pertaining to showings of results, it is held that the following must be considered:

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**Results Must be Unexpected:**

Unexpected properties must be more significant than expected properties to rebut a prima facie case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

**Claims Must be Commensurate With Showings:**

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of prima facie obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

Applicants' have not persuasively demonstrated unexpected results for the combinations of their claims. Applicants have not demonstrated their results to be unexpected and more significant than being secondary in nature. Applicants' have not demonstrated their showing to be commensurate in scope with the scope of combinations now claimed.

The latest results of the comparative showing, though two graft polyols of the claims are shown, are deficient in their representation of the scope of materials encompassed by the claims, including isocyanates, catalysts, blowing agents, other polyols and/or combinations or their exclusion, and ranges of amount values encompassed by the claims for critical components of the claims.

Though comparison with the closest prior art may be made, such evidence does not negate the need for the showings to be reflective of the scope of the claims as they currently stand.

Further, as to the significance of the showing, it is seen that the evidence of the record needs to demonstrate that the differences in the reported demoulding values correlate to significant difference in products realized in the field. And, it must be clear on the record that these results are more significant than what would be expected from making such modifications.

Applicants' arguments have been considered. However, rejection is maintained.

As the arguments set forth up to page 5 line 10 of applicants' reply are the same as

those set forth previously, it is maintained that the above arguments set forth again above still apply here and no further address here is required.

As to applicants' latest arguments on reply beginning at page 5 line 10, it is seen and agreed that unexpected results may be acceptably demonstrated through the differences discussed on reply and in the declarations of record. Further, it is seen that criticality could be attributed to seemingly small differences {i.e. 94.8 versus 93.3. and 93.9}. Along these lines it is seen that the relevance and significance of the demoulding thickness values of the instant concern have been acceptably established on the record.

However, it is maintained that the current evidence of record is insufficient in demonstrating new or unexpected results that are commensurate in scope with the scope of the claims as they currently stand. It is also maintained that the current evidence of record is insufficient in demonstrating that the results are, in fact, new or unexpected and more significant than the current evidence of expected results of record.

Applicants make no new arguments specific to the question of whether their showings of new or unexpected results are commensurate in scope with the scope of the claims as they currently stand. Accordingly, no further arguments on this point are seen to be necessary at this time.

On the second point of whether applicants' results are sufficiently demonstrated to be new or unexpected, it is held that the current showings of record are insufficient in demonstrating the significance in the comparative showings of record. Though it is seen that Example 2 offers values having a 31.3% improvement over Reference

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Example 1, it is also seen that Example 3 only shows an 18.8% improvement over Reference Example 1 while Example 2 of the invention, similarly, shows a 15.4% improvement over Example 3, also of the invention. Even based on applicants' own yardstick for analyzing their limited showings of results, there is seen to be a comparable amount of variation in improvement within the representations of applicants' invention as there is between representations of applicants' invention and those of the prior art.

It is noted also, in the instant case, that with so much criticality being associated with a small difference between a specific value determination made in the showings, that basing the showing of new or unexpected results on comparison with one comparative sample used to represent all of the prior art is wholly inadequate in supporting applicants' position that a showing of new or unexpected results has been set forth.

Accordingly, it is maintained that the current evidence of record is insufficient in adequately demonstrating that applicants' results are new or unexpected and more significant than the expected results of record. It is also maintained and reiterated that this is in addition to the fact that the current evidence of record is insufficient in demonstrating new or unexpected results that are commensurate in scope with the scope of the claims as they currently stand.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Cooney/  
Primary Examiner, Art Unit 1796